

Background Paper

THE POTENTIAL IMPACT  
OF OIL AND NATURAL GAS PRICES  
ON THE CANADIAN ECONOMY



Ontario

Ministry of Treasury and Economics

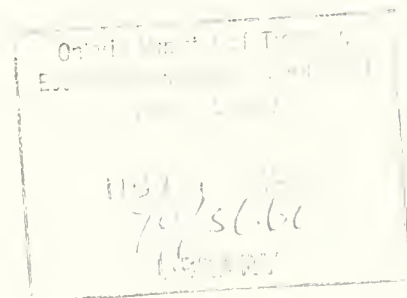
November, 1979.

HD  
9574  
.C23  
.P67



ec 82  
Background Paper

THE POTENTIAL IMPACT  
OF OIL AND NATURAL GAS PRICES  
ON THE CANADIAN ECONOMY



Ontario

Ministry of Treasury and Economics

November, 1979.



Digitized by the Internet Archive  
in 2018 with funding from  
Ontario Council of University Libraries



<https://archive.org/details/potentialimpacto00onta>

## TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	
INTRODUCTION	1
ANOTHER SHOCK	1
CONTROLLING INFLATION - CREATING JOBS	2
WHERE THE ECONOMY IS HEADING: TWO RESTRAINTS ON GROWTH	3
. U.S. Recession	3
. High Interest Rates	4
OIL PRICING: A THIRD POTENTIAL RESTRAINT ON GROWTH	6
. Uncertainties	8
. Some Impacts on Consumers Across Canada	10
HOW OTHER ECONOMIES ADJUST	11
. How Vulnerable Are We?	11
. The Inflation-Jobs Trade-off	11
. The Advantage of Strong Currencies	13
CONCLUSION	15



## SUMMARY

The federal government is currently reviewing a number of options with respect to oil and natural gas price increases and revenue sharing. These deliberations must take account of the economic consequences, the fiscal and monetary policy implications and the economic environment in which the chosen option will be implemented.

Governments in Canada have embarked on a long term strategy of public sector expenditure restraint to restore the private sector as the engine of non-inflationary growth in the economy. This has contributed significantly to a moderation of wage increases and the improvement in Canada's international cost competitiveness. Since 1976, the private sector has created an incredible 835,000 jobs. Canadian job creation must continue to average 250,000 per year to 1983 just to absorb potential new entrants. Higher domestic oil and gas prices could jeopardize this.

The Canadian economy now faces two major sources of weakness:

- . a U.S. recession and weaker world economy precipitated by recent OPEC price hikes; and
- . high interest rates.

The deteriorated stagflation outlook in the U.S. alone has shaved just under a percentage point off 1980 real economic growth prospects in Canada and added 0.4 percentage points to expected inflation.

Interest rate increases since June 1979 could reduce 1980 economic growth by as much as 1.6 percentage points and reduce job creation in Canada by 44,000 jobs.

In this setting, significant domestic oil and natural gas price increases would not only directly add to the inflation problem but also induce a major loss of consumer purchasing power, income and job growth. One pricing option apparently being considered involves:

- . a \$1 per barrel increase in January, 1980 and a \$3 per barrel increase in July 1980, followed by semi-annual increments of \$2 per barrel;
- . a continuation of indexed natural gas prices;
- . a change in the distribution of new revenues; and
- . a reported 30¢ per gallon excise tax on transportation fuels.

This option would directly impose a cost on Canadian consumers in the order of \$5.4 billion in 1980 alone. The federal excise tax accounts for \$2.8 billion of this amount.

New revenue sharing arrangements would give the federal government and the governments of oil producing provinces more than 75 per cent of additional oil and natural gas revenues from domestic production (not including the federal excise tax).





In the absence of new economic offsets, the impacts of this package on the economy would include:

- . a loss of one full percentage point of Canadian real Gross National Product in 1980 and an increase of 2.2 per cent in consumer prices. Employment growth could be reduced by 60,000. In 1980 alone, the net loss to the Canadian economy would be \$2.9 billion of income;
- . by the end of 1981, consumer prices would be 4.5 per cent higher, job creation 137,000 lower and real GNP 2 per cent less than would have been the case if the option were not implemented.

The federal excise tax would be an infringement on what is traditionally a provincial tax field. It would bear heavily on low income Canadians. Moreover, it would jeopardize the existence and further development of a national market and would encourage displacement of Canadian production with imports.

The average Canadian consumer would pay an additional \$273 to \$298, in 1980, in higher fuel oil and gasoline costs in addition to generally higher prices for other goods and services. These higher fuel oil and gasoline costs represent 6 days' pay for the average worker in St. John's, 5.5 days in Quebec City, 4.9 in Toronto, 5.9 in Winnipeg, 5.7 in Saskatoon and 4.3 in Vancouver.

Two major uncertainties inherent in increasing domestic petroleum prices at this time are the impact on labour force growth and wage escalation. In the past four years, high inflation in Canada has resulted in only a 2.7 per cent increase in real family income. In an attempt to protect household incomes from the effects of further petroleum price hikes, a significant increase in both wage demands and labour force entrants may occur. If so, the increase in inflation and unemployment could be even more dramatic.

West Germany and Japan have been cited as examples of successful adjustment to rapid oil price escalation without serious damage to their economies or citizens. However, each has paid the cost in its own way:

- . West Germany avoided high inflation by accepting sharply higher unemployment and permitting massive layoffs of foreign workers. Japan suffered high inflation rates and kept low unemployment because of very slow labour force growth;
- . In both these countries, the need to create jobs has been considerably less than in Canada. The policy of a gradual phasing of petroleum price increases has enabled Canada to create jobs for an unparalleled labour force expansion. This strategy allowed Canada to create jobs at an average annual rate of 2.7 per cent between 1974 and 1976 while Japan's job creation increased at a 0.1 per cent rate and West Germany actually lost jobs at a 2.1 per cent annual rate;
- . Furthermore, it is often overlooked that Canada uses more oil per worker than either Japan or West Germany. Its enormous geographic size, its industrial structure and its climate make Canada more vulnerable to the effects of oil price increases; and



- . The appreciation of the West German mark and Japanese yen means that the price of a barrel of oil (in U.S. dollars) to their economies had by early 1979 actually risen less since 1973 than in Canada or the United States.

The Canadian option, one not available to either West Germany or Japan, is to use its petroleum wealth to maintain the growth of its economy. It is not an option which is economically less viable or less efficient than that chosen by other nations. Instead, it is an option that is consistent with both the nation's resources and its values.



## INTRODUCTION

Nothing has so dominated the economies and economic policies of nation states in the Seventies as has the adjustment to sharply higher prices for oil since 1973 and the problems of reinvestment of petrodollars. Problems related to economic growth, employment creation, inflation, balance of payments constraints, rapid changes in the international exchange value of currencies and the appropriate monetary and fiscal policy responses have all been intimately linked to significant increases in world oil prices. Energy policy can no longer be separated from its enormous economic and industrial impact or the monetary and fiscal policy implications of those impacts. In short, oil and natural gas pricing dominates the economy and its prospects.

## ANOTHER SHOCK

Canadians confront again the possibility of a dramatic increase in the domestic price of oil and natural gas. This has come about solely because, by mid 1979, world oil prices have risen sharply, this time by 60 per cent over 1978 levels. Governments around the world, both in industrial and developing nations, must again, as in 1974, minimize the social and economic disruption and adjust their economies to this new monopoly levy on their capacities to produce. The expected increased revenues to OPEC from recent price increases are in the neighbourhood of \$50 billion (U.S.). This is roughly the same magnitude as was yielded by the 1973-74 oil price increase.

The federal government is now reviewing a number of major options with respect to oil and natural gas pricing in Canada. That review relates to the magnitude of price increases to impose on the Canadian economy, the timing of those increases, the possibilities of new revenue sharing arrangements and the potential for offsetting the adverse economic impact that price increases will inevitably have. Central to this review must be consideration of the current state of the economy, its capacity to absorb new shocks, and its probable reaction to petroleum price hikes over the next few years.

What Canadians should know is that they will feel the inflationary and recessionary effects of recent OPEC price hikes, regardless of what the federal government decides to add by raising domestic oil prices. The Canadian economy is sufficiently open to world trade and dependent on imported oil that the Canadian economy will not escape entirely the burden of OPEC's latest increase. Higher import prices and falling world demand for Canada's products will again affect economic growth and inflation as they did in 1974-75.





## CONTROLLING INFLATION - CREATING JOBS

All governments have accepted the need for expenditure restraint as an essential part of a long term strategy to restore the private sector as the principal engine of non-inflationary growth in Canada. Such a strategy has been in effect in Ontario since 1975 and it was adopted by all governments in Canada at the February, 1978 First Ministers' Conference on the economy. There is growing evidence that the strategy has been successful in both increasing private sector employment and restraining domestic sources of inflation. Since 1976, the Canadian economy has created an incredible 847,000 jobs. Of this huge increase in employment, public sector employment has increased by 12,000, while private sector employment has expanded by 835,000. This compares to a situation in the early 1970's where the public sector was creating an average of 71,400 jobs each year and accounted for 26 per cent of total employment growth in the 1970-75 period. This reduction of competing government demands in the labour market has made possible a very dramatic reversal of real wage growth in the commercial sector. In turn, the real wage restraint has facilitated the extraordinary private sector job creation performance of the Canadian economy, despite a slowly growing world economy. Table 1 shows that recent wage restraint, coupled with a lower valued dollar, has more than offset Canada's deteriorated cost performance relative to the United States that resulted from the wage inflation in 1974-75, following the last dramatic oil price increases. Inflation in Canada over the past three years has been principally due to rising costs of imports and higher food and energy prices, not higher wage costs.

GROWTH IN UNIT LABOUR COSTS:  
CANADA AND THE UNITED STATES  
1974-1979:2 (per cent)

Table 1

	Manufacturing			All Commercial Industries (non-farm)		
	Canada		United States	Canada		United States
	\$ Can.	\$ U.S.	\$ U.S.	\$ Can.	\$ U.S.	\$ U.S.
1974-1976	43.0	45.0	28.5	42.6	44.6	27.3
1977-1979:2	16.6	-0.7	20.4	18.1	0.6	25.9

Sources: Bank of Canada Review; United States Department of Labour, Monthly Labour Review.

Canadians have "tightened their belts" over the past three years and have accepted, to a large extent, the real income restraint required to regain their competitiveness. As a result they have been rewarded with a strong job creation performance. Restraint of public sector employment creation in 1980 is still necessary to this strategy. Continued private sector job growth, however, can only take place in an economy where consumers and business have the income required to carry out their spending and investment intentions. Higher domestic oil and natural gas prices jeopardize those plans, and undermine the government restraint strategy.





## WHERE THE ECONOMY IS HEADING: TWO RESTRAINTS ON GROWTH

The Canadian economy is heading into 1980 with at least two major restraints on demand growth. The U.S. recession and high domestic interest rates are expected to be acting to slow employment and economic growth in Canada.

### U.S. Recession

Earlier this year, the U.S. economy was expected to suffer a shallow and short recession in late 1979, followed by a modest recovery in early 1980. Canadian growth prospects were correspondingly diminished, although the U.S. economy, Canada's principal export market, was still expected to be growing next year. Since July, however, the sharp rise in OPEC oil prices, accelerating U.S. inflation and inflationary expectations, coupled with dramatic increases in U.S. interest rates, have shaved almost 2 percentage points off expected 1980 U.S. economic growth. The U.S. economy is now expected to be in a recession in 1980 that will be both deepened and prolonged by the current credit crunch initiated by the Federal Reserve Bank.

Recession in the U.S. will be felt principally in the housing, consumer durables and business investment sectors — precisely those areas where Canadian exports such as lumber, autos and metals predominate. Table 2 shows the estimated impact of the recent changes in the U.S. recession and inflation forecast on the Canadian economic outlook in 1980. Growth prospects in Canada are reduced by potentially just under a percentage point while job creation is reduced and inflation in Canada increased. Moreover, there is still major uncertainty regarding further OPEC oil price increases in the next few months coupled with more U.S. interest rate hikes. The United States could be pushed into an even deeper and longer recession, dragging the rest of the North American economy with it.

IMPACT OF UNITED STATES STAGFLATION  
ON THE CANADIAN ECONOMY IN 1980  
(Percentage Points)

Table 2

	Effects of Worsened U.S. Outlook
Real Growth	-0.5 to -0.9
Rate of Inflation	+0.2 to +0.4
Unemployment Rate	+0.1 to +0.3
Job Creation (000's)	-15 to -33

Source: Ministry of Treasury and Economics.



## High Interest Rates

The Canadian Bank Rate (the rate at which chartered banks may borrow from the Bank of Canada) has jumped recently to 14.0 per cent. This is a 6.5 percentage point increase since January 1978 and a 2.75 point increase since June of this year. Other borrowing and lending rates have also risen. The prime rate at chartered banks has risen to at least 14.75 per cent as has the conventional mortgage rate. These high interest rates have a significantly dampening effect on economic activity in the short run. Table 3 shows that the impact of the interest rate increases since June 1979 has been to reduce the expected 1980 real GNP growth rate in Canada by between 0.9 to 1.6 percentage points and to reduce job creation by between 33,000 and 44,000 jobs.

---

IMPACT OF HIGH INTEREST RATES  
ON THE CANADIAN ECONOMY IN 1980  
(Percentage Points)

---

Table 3

---

	Effects of Interest Rate Hikes since June 1979
Real Growth	-0.9 to -1.6
Rate of Inflation	-0.5 to -1.4
Unemployment Rate	+0.3 to +0.4
Job Creation (000's)	-33 to -44

---

Source: Ministry of Treasury and Economics.

---

The housing sector will be heavily affected. A new home buyer requiring a \$50,000 mortgage will face increased interest costs of \$1,593 annually as a result of the additional 3.75 percentage point increase in mortgage rates since Spring. This would be only partially offset by the proposed mortgage and property tax credit (at a maximum of \$750 next year). Sellers of consumer durables (for example, autos and appliances) will also be adversely affected. Small firms and farmers will have increased debt burdens. Moreover, to reduce carrying costs, businesses in general may embark on a rapid reduction of the large inventory build-up that has occurred in the first half of 1979. If so, the production and employment losses could be very large.

It can be argued, however, that these interest rate increases have supported the Canadian dollar and have helped to avoid further increases in imported inflation. On net, therefore, interest rate increases may contribute to restraining inflation in Canada; but they do directly raise the cost of home ownership and the cost of business operations. The short run price of a high interest rate policy is lower economic growth and less job creation. The decision must be made whether this price was warranted if, by imposing the additional burden of domestic oil price increases on the Canadian economy, inflation accelerates and job growth is even further reduced.



In sum, there are certain factors in the economic environment facing Canada over which Canadians have no control. Obvious examples would be the state of the U.S. economy and the international price of oil. Nonetheless, decisions about those things that are under domestic control are unavoidable. Interest rates and domestic oil and natural gas prices are clearly in this category. Canadians will ask only that those decisions be consistent and in the best interests of the nation as a whole.





## OIL PRICING: A THIRD POTENTIAL RESTRAINT ON GROWTH

The federal government is currently reviewing a set of options which would dramatically alter the domestic prices of oil and natural gas both in 1980 and potentially for a number of successive years. One option being considered involves a higher series of domestic oil and natural gas price increases than experienced over the past two years and a reportedly large increase in excise taxes on petroleum fuels used in transportation. The total cost of this option to Canadian consumers in 1980 alone could be in the order of \$5.4 billion. This includes a possible \$2.8 billion from a reputed federal excise tax of 30 cents a gallon on all transportation fuels and \$2.6 billion from an increase in oil and natural gas prices to Canadian consumers.

The new production revenues (including higher export revenues) generated by this federal option of oil and gas wellhead price increases are shown in Table 4 for the years 1980 and 1981. The table also shows a related new sharing arrangement amongst the federal government, the producing provinces and the petroleum industry of revenues generated by price increases contained in this option. As is illustrated, the federal share increases at the expense of the industry share while the share of new monies going to the producing provinces remains unchanged. This federal option would lock in the new sharing system along with the schedule of price increases. The table illustrates that producing provinces would receive almost \$1.6 billion more by 1981 than would be the case if prices rise by only \$1 per barrel (with natural gas indexed) every six months over the period.

REVENUE DISTRIBUTION FROM OIL AND NATURAL GAS  
PRICE INCREASES  
(\$ Million)

Table 4

	Existing Phasing Option <sup>1</sup>		Another Federal Option <sup>2</sup>	
	1980	1981	1980	1981
Total New Revenue Generated	1,470	1,960	3,170	3,800
. Federal Share	175	240	920	1,330
. Provincial Share	660	880	1,425	1,710
. Industry Share	635	840	825	760

1. This assumes a continuation of the existing phasing schedule of a \$1 increase in January with another \$1 increase added to that in July, with natural gas indexed.
2. These are estimates of new oil and natural gas revenues that would be generated from domestic production given a price increase in 1980 of \$1 per barrel in January and a \$3 increase in July (with natural gas indexed at 85 per cent). In 1981, this option has a schedule of \$2 per barrel every six months (with natural gas indexed). These estimates include increased revenues from export sales and are not just the increased costs to Canadian consumers. However, the estimates exclude any new federal excise tax revenues from a transportation fuels tax.





Such domestic price increases coupled with a federal excise tax in the order of \$2.8 billion would significantly reduce growth of the Canadian economy in 1980. Moreover, some regional economies might even be pushed into recession. The federal energy package of excise tax and oil and gas price increases contained in this option would take a full percentage point off Canadian GNP in 1980 and add 2.2 percent to consumer prices. Employment growth could be reduced by 60,000 jobs. Table 5 shows these economic impacts for 1980 as well as the accumulated impacts for 1981. By the end of 1981 the Canadian economy would have 4.5 per cent higher consumer prices, 2 per cent lower Canadian real national income and 137,000 fewer jobs than would have been the case without implementing the energy price and excise tax increases contained in the federal package.

ECONOMIC EFFECTS OF HIGHER  
OIL AND NATURAL GAS PRICES: CANADA<sup>1</sup>

Table 5

	1980	1981 <sup>2</sup>
Increase in the Consumer Price Index (%)	+2.2	+4.5
Loss in Canadian Real GNP (%)	-1.0	-2.0
Loss in Job Creation	-60,000	-137,000

1. This table shows the effect of the federal pricing option described above and includes a \$2.8 billion excise tax without additional measures to offset the impacts.
2. This includes the cumulative effect from oil and natural gas price increases in both years over the current wellhead price levels.

There is a loss in real income to Canada as a result of the transfer of monies from consumers of oil and natural gas to the producers and the federal and provincial governments. The reason is related to both the incomplete respending of petrodollars and the changed structure of spending. For example:

- . Oil and natural gas price increases mean that consumers have less money to pay for other goods, and their purchases of these things decline;
- . As a result, producers face rising inventories and cut back on production. The 1974 oil and natural gas price increases provide ample evidence of this: inventories rose by \$3.45 billion, more than twice the previous year's increase.
- . This leads to layoffs or a shorter work week for Canadians and thus to lower incomes. Businesses scrap or delay investment plans; and
- . This process of income decline and subsequent spending decline multiplies throughout the economy.



By the same token, those who receive the new oil and gas revenues do not completely respond to them as they are lost to consumers. Therefore, the spending decline by consumers and non-oil businesses is not completely offset. Moreover, they spend them in different ways so that some industries and individuals, particularly in the petroleum-related sectors, face increasing demand for their services while others face declining demand. The economy does not automatically shift resources to the new industries to maintain the same level of overall employment.

In 1980 the net loss of income to Canadians is \$2.9 billion. It is a "deadweight" loss to the Canadian economy that is borne every year and is never recovered. For some Canadians it is a loss in addition to the higher costs of oil and natural gas. It represents the cost of the inability to achieve an effective way of using Canada's energy wealth. And it is a cost which is increased in each and every year that domestic oil and gas prices are increased without a comprehensive reinvestment plan.

The imposition of a federal excise tax would be an infringement on a tax field traditionally occupied by the provinces. Moreover, a large part of such a tax would bear heavily on poor families and those in rural areas that can least adjust to its impact. As well, there would be serious implications for the Canadian economy. The imposition of a massive excise tax on transportation fuels would undermine the development of an integrated national market in Canada. The lowering of tariffs on a global scale in the coming years will remove most of the protection traditionally enjoyed by industrial regions of the country and expose the entire economy to further import penetration. While there is little doubt that Canada's industries are capable of meeting this challenge, the adjustment process is likely to be complicated if businesses are required to meet sharply rising distribution costs between regions within the country. The tax could help imports to displace the supply of manufactured goods from Canadian sources. At a time when every attempt should be made to preserve and enhance the viability of Canada's national market, the excise tax on transportation could be viewed as a retrograde step.

### Uncertainties

The estimates of economic impact represent the way the economy behaved in the past, on average, to similar economic shocks. But each situation is, in reality, different. The current economic environment, upon which these energy price increases may be imposed, is extremely uncertain.

No one can be certain of the extent to which domestic inflation will respond to the initial oil price shock. Wage settlements have begun to move up again and COLA clauses have been restored to 35 per cent of new collective agreements this year after having fallen to 20 per cent in 1977. Corporate profits have risen sharply in the past year and a half, and real labour income per worker has been falling for two years. Nonetheless, there is some evidence that labour costs, especially in manufacturing, are beginning to move up strongly. To add an oil price shock to this situation invites a hostile collective bargaining climate. Poor growth prospects and high inventories strengthen the resistance of employers to wage increases. On the other hand, higher inflation and high profits increase the resolve of employees to gain higher settlements. The result may be increased strikes and lockouts. The loss of output through increased





labour disputes, as happened in 1974 and 1975, may similarly damage the international reputation of the Canadian economy. There is no room for complacency. Canada's new found and hard won competitiveness and attractiveness to investment could be dissipated in higher labour costs or lost productivity.

Whether unemployment rates will rise sharply or not depends a good deal on how potential entrants to the work force respond to both a slowing economy and high inflation. Slower job creation often deters entrants, but high levels of inflation can increase the number of people looking for work. In the past four years high inflation in Canada has resulted in only a 2.7 per cent increase in real family income over the entire period. In fact, Table 6 shows that real family income (\$1971) in Canada has declined from \$12,774 in 1976 to \$12,184 in 1978. This slow growth in real purchasing power of Canadian families since 1974 may have contributed to the sharp increase in the number of adult women looking for jobs. More inflation and further declines in real income that would accompany higher domestic oil prices might accelerate this trend, adding much more to unemployment than would now be predicted.

THE CHANGING BUYING POWER OF CANADIAN FAMILIES:  
1975-1978

Table 6

	1975	1976	1977	1978
Average Family Income <sup>1</sup>	\$11,994	12,774	12,503	12,184
Percentage Change	1.1	6.5	-2.1	-2.6

Source: Statistics Canada.

1. In 1971 dollars.

In summary, it is not possible to know for certain how great an effect will be felt in the economy; but the general magnitudes shown here might be considered minimum impacts given the other negative influences currently working on the economy. One thing is certain, economic circumstances can change quite rapidly, as we have experienced over the past six months. Tying the Canadian economy into a series of shocks over the next few years, as apparently contemplated in current federal oil pricing options, gives little room for manoeuvrability should world economic circumstances suddenly shift again. Once the principle of pricing at some benchmark other than what is best for the Canadian economy is accepted, there is a corresponding reduction in flexibility for economic policy. It would be prudent economic planning to anticipate that the latest OPEC price increases will be followed by still further increases. OPEC members are currently engaged in yet another round of price "leap frogging" and more sharp increases are firmly anticipated. A number of U.S. agencies have recently predicted an increase in the world price of oil to \$85 per barrel by 1990 an increase of over 3 times its present average level. Economic policy, therefore, cannot proceed on the assumption that if the Canadian economy takes the full damage now then it will not have to pay heavily again.



### Some Impacts on Consumers Across Canada

The two most obvious and direct impacts on Canadian consumers are in the cost of automobile transportation and heating. These are by no means the only cost increases borne by the consumer, as indicated in the general rise of all consumer prices shown in Table 5 above. Nonetheless, the federal option described earlier would impact heavily on heating and gasoline costs across the country.

Users of heating oil in Canada face a series of price increases of about 48 cents per gallon over the 1980 to 1983 period. In Toronto, it represents an increase of 71.2 per cent. A 30 cents per gallon federal excise tax on gasoline would increase annual fuel costs by \$200 to the typical Canadian motorist in 1980. The combined effect on motorists of higher oil prices and excise tax in 1980 is \$237. The price of gasoline would rise from the current level of \$1.08 per gallon to \$1.50 by August 1980 and \$1.36 by August 1983. For both heating oil and gasoline, the typical Canadian consumer will be paying from \$273 to \$298 per annum more in 1980 than in 1979.

Of course there are wide variations in the use of fuel oil and gasoline by individuals. The ability to pay higher prices is dependent on personal income and, in this regard, it is well known that low income families spend a greater proportion of their income on home heating than high income families. Further, there are reasons to believe that it is more difficult for low income families to cut back on their uses of energy for heating and transportation.

Estimates of the increased fuel oil and gasoline costs for selected Canadian cities are presented in Table 7 and should be regarded as being conservative. The use of energy for residential space heating is higher in colder locations. Also, according to one survey of 4 provinces, household mileage in Ontario was higher than Quebec but lower than Alberta or Nova Scotia. It is also noteworthy that household mileage was greater in rural areas and small cities than in larger cities and their fringe communities.

INCREASED COSTS TO TYPICAL CONSUMERS OF  
FUEL OIL AND GASOLINE IN SELECTED CANADIAN CITIES  
(Dollars Per Annum)

Table 7

	St. John's	Quebec	Toronto	Winnipeg	Saskatoon	Vancouver
1980	298	289	231	292	292	273
1983	960	895	831	917	917	767

Notes: Based on the federal pricing option described above including the additional 30 cent excise tax on gasoline.

The increased costs for heating and travelling in 1980 represent about 6 days pay for the average worker in St. John's, in Quebec City it is 5.5 days, in Toronto it is 4.9 days pay, in Winnipeg 5.9, in Saskatoon it's 5.7 days, and in Vancouver it is 4.3 days pay. For most Canadians this means cutting their consumption of other goods and services by an equivalent amount.





## HOW OTHER ECONOMIES ADJUST

All industrial economies have experienced significant losses of employment growth and an increase in inflation following sharp increases in oil prices. Nonetheless, it has been argued that the West German and Japanese governments have somehow managed to adjust to world oil prices without serious consequences to their economies or their citizens. Therefore, so the argument goes, if the consumers of West Germany and Japan can successfully adjust to world prices, then North American consumers should do the same. This argument ignores a number of essential factors.

### How Vulnerable Are We?

The U.S. and Canadian economies, although much less dependent on imported oil than West Germany or Japan, are considerably more oil intensive in their structure. The Canadian and United States economies consume 66 and 71 barrels of oil per worker respectively, compared to 35 in Japan and 38 in West Germany.

Canada's uses of oil are related to its enormous geographic size, its attendant transportation dimensions, its industrial structure and its climate. The production of food and the mining, processing and transporting of resources are highly energy intensive activities. They form a larger percentage of Canada's Gross National Product than in many other industrial countries. The winter heating season is long and harsh. Therefore, equivalent oil price increases can be expected to have a greater economic impact on the Canadian economy.

### The Inflation-Jobs Trade-off

Nonetheless, both the West German and Japanese economies did suffer significantly in terms of inflation or unemployment, or both, following the 1973 OPEC price increase. Table 8 shows that the unemployment rate on average more than quadrupled in West Germany whereas in Japan the average annual inflation rate almost tripled. Each country chose its own path of adjustment consistent with its options, institutions and values. In Japan the cost of maintaining a low unemployment rate was a huge increase in inflation. For West Germany, on the other hand, although inflation did jump sharply it was brought under control at the expense of sharply higher unemployment. Moreover, the actual West German unemployment rate would have been much higher had it included unemployed migrant workers whose job loss was 22 per cent over the period from 1974 to 1976. As shown in Table 9, foreign workers appeared to bear heavily the costs of monetary restraint.



INFLATION AND EMPLOYMENT  
IN WEST GERMANY AND JAPAN  
(Per Cent Annual Rates of Change)

Table 8

	1971-1972	1974-1976
West Germany		
CPI Inflation	5.4	5.8
Employment	-0.4	-2.1
Labour Force	-0.2	-1.0
Unemployment Rate (% Level)	0.8	3.5
Japan		
CPI Inflation	5.3	15.0
Employment	0.3	0.1
Labour Force	0.4	0.3
Unemployment Rate (% Level)	1.3	1.8

Sources: OECD Publications

EMPLOYMENT GROWTH IN WEST GERMANY  
(Per Cent)

Table 9

	Total	Employment Nationals*	Foreigners*
1974	-1.9	-1.4	-5.3
1975	-3.4	-2.5	-11.5
1976	-0.9	0.2	-6.6
1977	-0.2	0.6	-2.8
1978	0.2	1.3	-0.7

\* Excludes self-employed persons.

Source: Monthly Report of Deutsche Bundesbank, OECD Publications.

In North America, both Canada and the United States did bear increased costs in terms of both more inflation and more unemployed. In part, this was because even though these economies were protected by phased domestic oil price increases, they were much more heavily dependent on oil. Nonetheless, when measured against the need to create jobs in North America, because of unparalleled labour force growth, the policy of gradual oil price increases was enormously successful. While the West German economy was losing jobs at an average annual rate of 2.1 per cent in the period from 1974 to 1976, the Canadian and United States economies were still creating jobs at average annual rates of 2.7 and 1.2 per cent, respectively (see Tables 8 and 10).



INFLATION AND EMPLOYMENT IN CANADA  
AND THE UNITED STATES  
(Per Cent Annual Rates of Change)

Table 10

	1971-1972	1974-76
<u>Canada</u>		
CPI Inflation	3.8	9.7
Employment	2.6	2.7
Labour Force	2.9	3.2
Unemployment Rate (% Level)	6.2	6.4
<u>United States</u>		
CPI Inflation	3.8	8.6
Employment	1.9	1.2
Labour Force	2.3	2.2
Unemployment Rate (% Level)	5.7	7.3

Sources: Bank of Canada Review, U.S. Economic Indicators.

The social options open to both Japan and West Germany in terms of restraining employment growth were easier given that their labour forces were growing only very slowly, as in Japan, or contracting as in the case of West Germany. In either Canada or the United States, had job creation not continued at the high levels recorded in this period the result would have been a much larger increase in unemployment. Indeed, in the United States, monetary authorities did try to slow the economy to restrain oil price inflation. The result was a temporary gain against inflation at the expense of a deeper recession, job loss and higher unemployment. In Canada, the existence of domestic oil supplies and a policy of gradual phasing of price increases ensured that while economic growth was slowed, the economy continued to create jobs.

The Advantage of Strong Currencies

What is often overlooked, as well, is that while both West Germany and Japan absorbed the full initial impact of the OPEC price hike in 1973, since that time in terms of their own currencies, the price of oil has fallen. This is because the OPEC oil price is quoted in United States dollars and both the Japanese yen and German mark have had enormous appreciation relative to that currency. Therefore, over the entire period since 1973 the price of oil paid by the West German and Japanese economies has actually fallen relative to that paid by the North American economy, (illustrated in Table 11). The determination of the West German authorities to control domestic inflation, coupled with their ability to contain the social costs (in job loss) of such an approach, led to an anticipation in the world community of an appreciation of the mark. That anticipation led to large capital flows to the country which helped to bring about further appreciation of the mark.



OIL PRICE INDEXES\* FOR CANADA, GERMANY, JAPAN  
AND THE U.S. (1973=100)

Table 11

	Canada	Germany	Japan	U.S.
1973	100.0	100.0	100.0	100.0
1974	166.3	339.8	374.8	244.5
1975	212.6	313.7	370.4	279.8
1976	258.6	326.7	376.3	293.5
1977	312.3	324.4	365.6	322.4
1978	373.2	287.1	291.6	335.8

\* Denominated in national currencies. The Canadian price is a weighted average price of net imports and consumption from domestic production. The OPEC price used for West Germany and Japan is the price per barrel of Saudi Arabian light crude. The U.S. price is a blended price.

Sources: U.S. Monthly Energy Review, OECD publications.







## CONCLUSION

Canada faced vastly higher potential social costs than West Germany or Japan from following the world price of oil when it initially escalated in 1973. The nation needed to create jobs at an unparalleled rate and it did so. That need has not diminished significantly. Canadian labour force growth continues to be strong and will require over a million new jobs to be created by 1983 in order to just absorb potential new entrants. That is an average of 250,000 new jobs every year and it compares to average annual job creation since 1973 of 263,000 jobs. Moreover, even with such a job creation record, the Canadian unemployment rate would still be 7.0 per cent in 1983.

The Canadian option, one not available to either West Germany or Japan, is to use its petroleum wealth to maintain the growth of its economy. It is not an option which is economically less viable or less efficient than that chosen by other nations. Instead, it is an option that is consistent both with the nation's resources and its values.

HD            The Potential impact of  
9574        oil and natural gas  
.C23        prices on the Canadian  
.P67        economy.

ECXC

SEP 24 2004



